

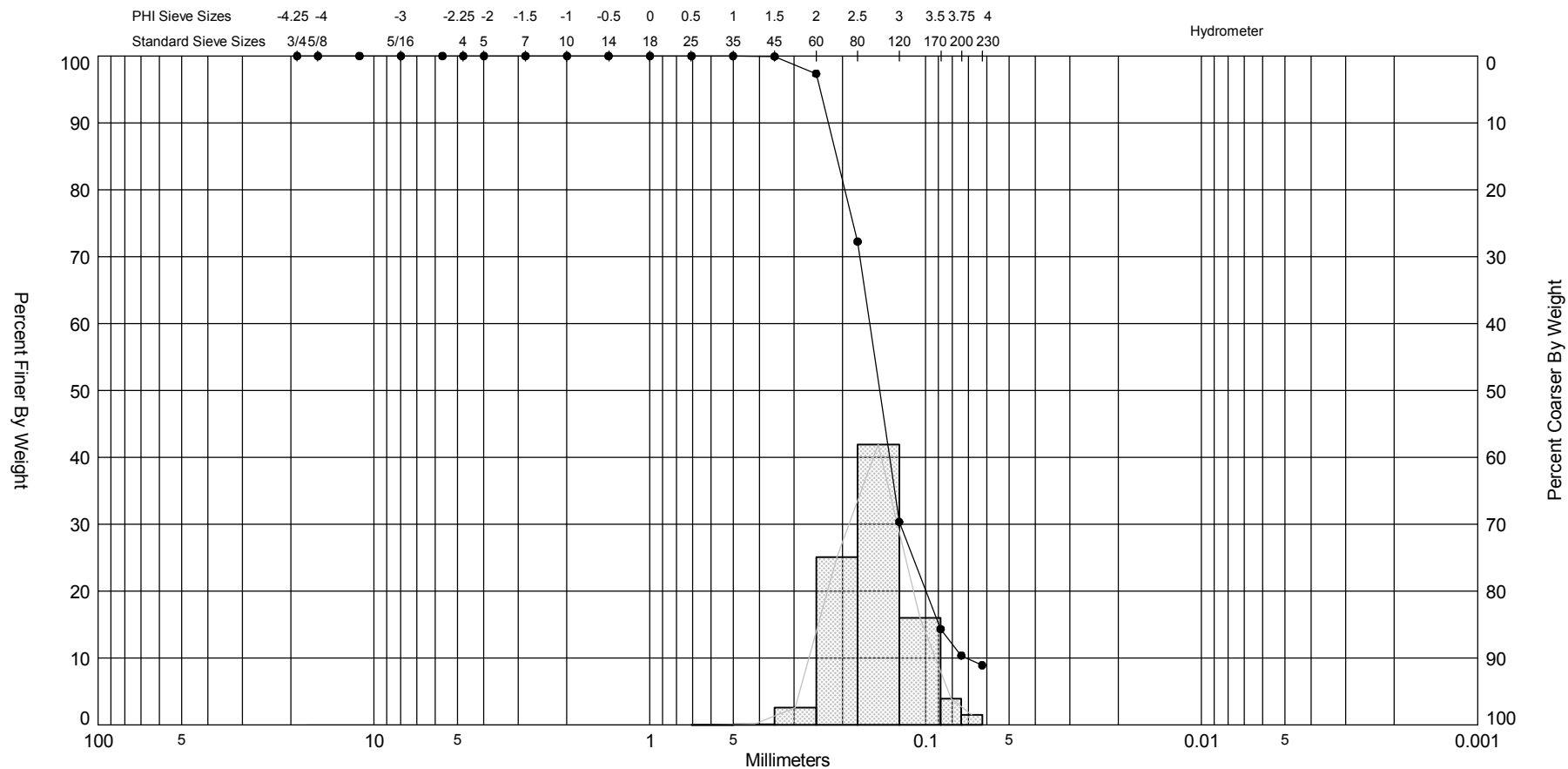
DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT McFaddin Sand Search Jefferson County, TX			9. SIZE AND TYPE OF BIT 3.0 In.	
2. BORING DESIGNATION JCVC-15-26			10. COORDINATE SYSTEM/DATUM Texas South Central	
3. DRILLING AGENCY American Vibracore Services, Inc.			11. MANUFACTURER'S DESIGNATION OF DRILL Alpine Pneumatic Vibracore	
4. NAME OF DRILLER Brian McCord			12. TOTAL SAMPLES DISTURBED UNDISTURBED (UD)	
5. DIRECTION OF BORING ☒ VERTICAL ☐ INCLINED			13. TOTAL NUMBER CORE BOXES	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING 01-27-15 14:50	
8. TOTAL DEPTH OF BORING 20.0 Ft.			16. ELEVATION TOP OF BORING -23.9 Ft.	
			17. TOTAL RECOVERY FOR BORING 19.7 Ft.	
			18. SIGNATURE AND TITLE OF INSPECTOR DA	

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-23.9	0.0					
			CLAY, trace organics, trace rock fragments, trace shell hash, organics and rock fragments distributed in pockets up to 0.25", light olive brown (2.5Y-5/4), (CL).		T1	Sample #T1, Depth = 2.6' Ave. Field Vane (tsf): 0.70
-29.1	5.2					
-30.5	6.6		CLAY, little sand, olive brown (2.5Y-4/3), (CL).		1	Sample #1, Depth = 5.9' Mean (mm): 0.08, Phi Sorting: 0.24 Fines (230): 84.76% (CL)
			CLAY, little sand, sand increases with depth, dark grayish brown (2.5Y-4/2), (CL).		T2	Sample #T2, Depth = 10.1' Ave. Field Vane (tsf): 1.02
-36.3	12.4					
-38.3	14.4		Sandy CLAY, dark gray (2.5Y-4/1), (CL).		2	Sample #2, Depth = 13.4' Mean (mm): 0.11, Phi Sorting: 0.51 Fines (230): 61.82% (CL)
			SAND, fine grained, quartz, trace clay, clayey pockets at 15.5' (2" x 0.5") and 18.9' (1.5" x 2"), (2" x 1.5") rock fragment at 15.7', dark gray (2.5Y-4/1), (SP-SC).		3	Sample #3, Depth = 17.2' Mean (mm): 0.15, Phi Sorting: 0.44 Fines (230): 8.91% (SP-SC)
-43.6	19.7					
-43.9	20.0		No Recovery.			
			End of Boring			

LOUISIANA JEFFERSON COUNTY 2015 VCS.GPJ JPBRAZIL.GDT 6/4/15

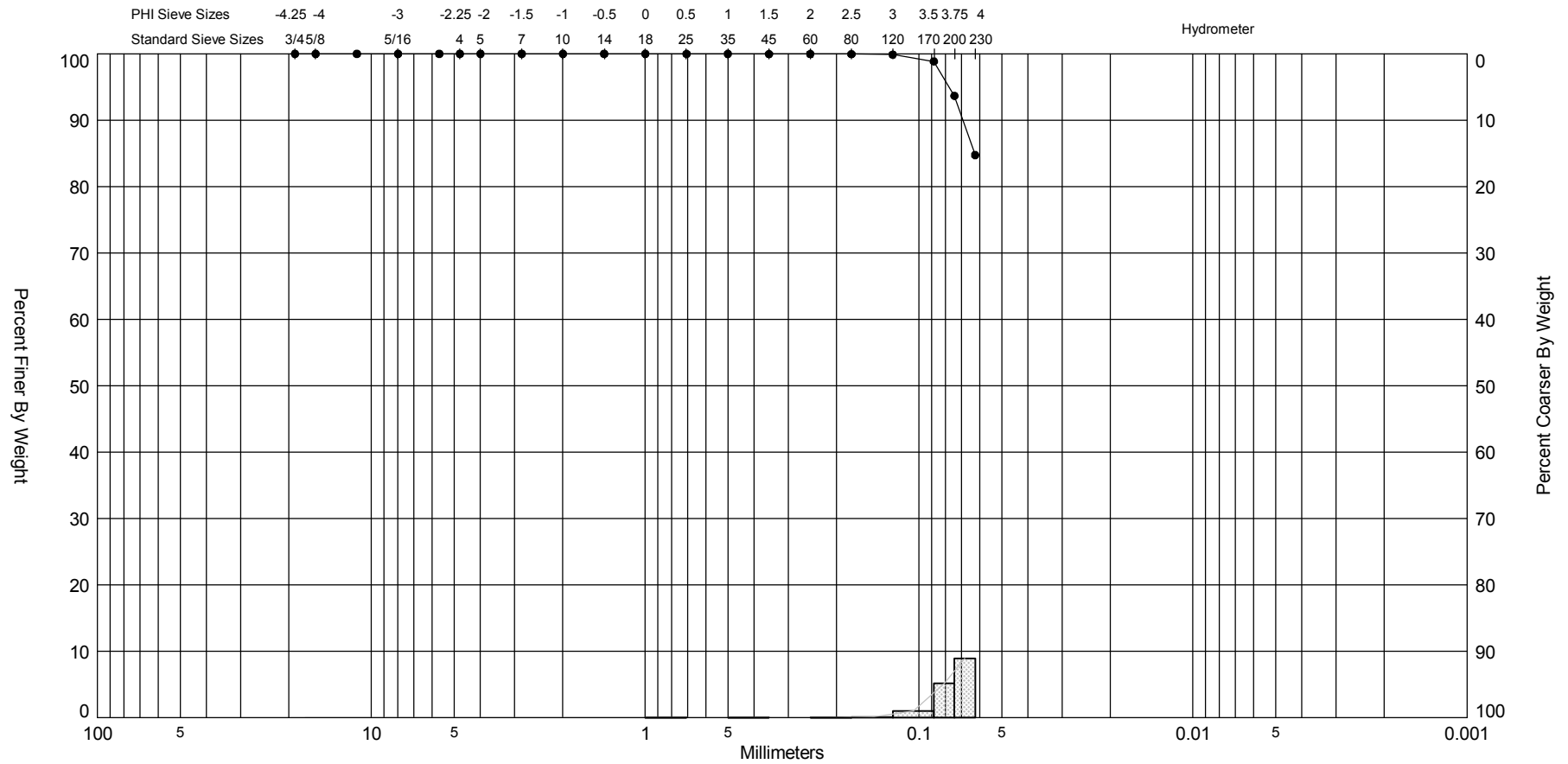
MCFADDIN_COMPOSITE_20181008.GPJ 11/19/18

Granularmetric Report Depths and elevations based on measured values				 APTIM 2481 NW Boca Raton Blvd. Boca Raton, FL 33431 ph (561) 391-8102			
Project Name: McFaddin NWR Beach Ridge Restoration							
Sample Name: JCVC-15-26 COMP							
Analysis Date: 10-05-18							
Analyzed By: BF							
Easting (ft): 3,478,827		Northing (ft): 13,789,710		Coordinate System: Texas South Central		Elevation (ft):	
USCS: SP-SC		Munsell:		Comments: COMPOSITE			
Dry Weight (g): 100.00	Wash Weight (g): 100.00	Pan Retained (g): 10.26	Sieve Loss (%): 0.09	Fines (%): #200 - 11.97 #230 - 10.35	Organics (%):	Carbonates (%):	Shell Hash (%):
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained	
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00	
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00	
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00	
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00	
3.5	-2.50	5.66	0.00	0.00	0.00	0.00	
4	-2.25	4.76	0.00	0.00	0.00	0.00	
5	-2.00	4.00	0.00	0.00	0.00	0.00	
7	-1.50	2.83	0.00	0.00	0.00	0.00	
10	-1.00	2.00	0.00	0.00	0.00	0.00	
14	-0.50	1.41	0.00	0.00	0.00	0.00	
18	0.00	1.00	0.00	0.00	0.00	0.00	
25	0.50	0.71	0.00	0.00	0.00	0.00	
35	1.00	0.50	0.01	0.01	0.01	0.01	
45	1.50	0.35	0.05	0.05	0.06	0.06	
60	2.00	0.25	2.52	2.52	2.58	2.58	
80	2.50	0.18	24.45	24.45	27.03	27.03	
120	3.00	0.13	41.06	41.06	68.09	68.09	
170	3.50	0.09	15.96	15.96	84.05	84.05	
200	3.75	0.07	3.98	3.98	88.03	88.03	
230	4.00	0.06	1.62	1.62	89.65	89.65	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
	3.50	3.22	2.78	2.46	2.27	2.05	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.73	0.15	0.45	0.26	2.96		



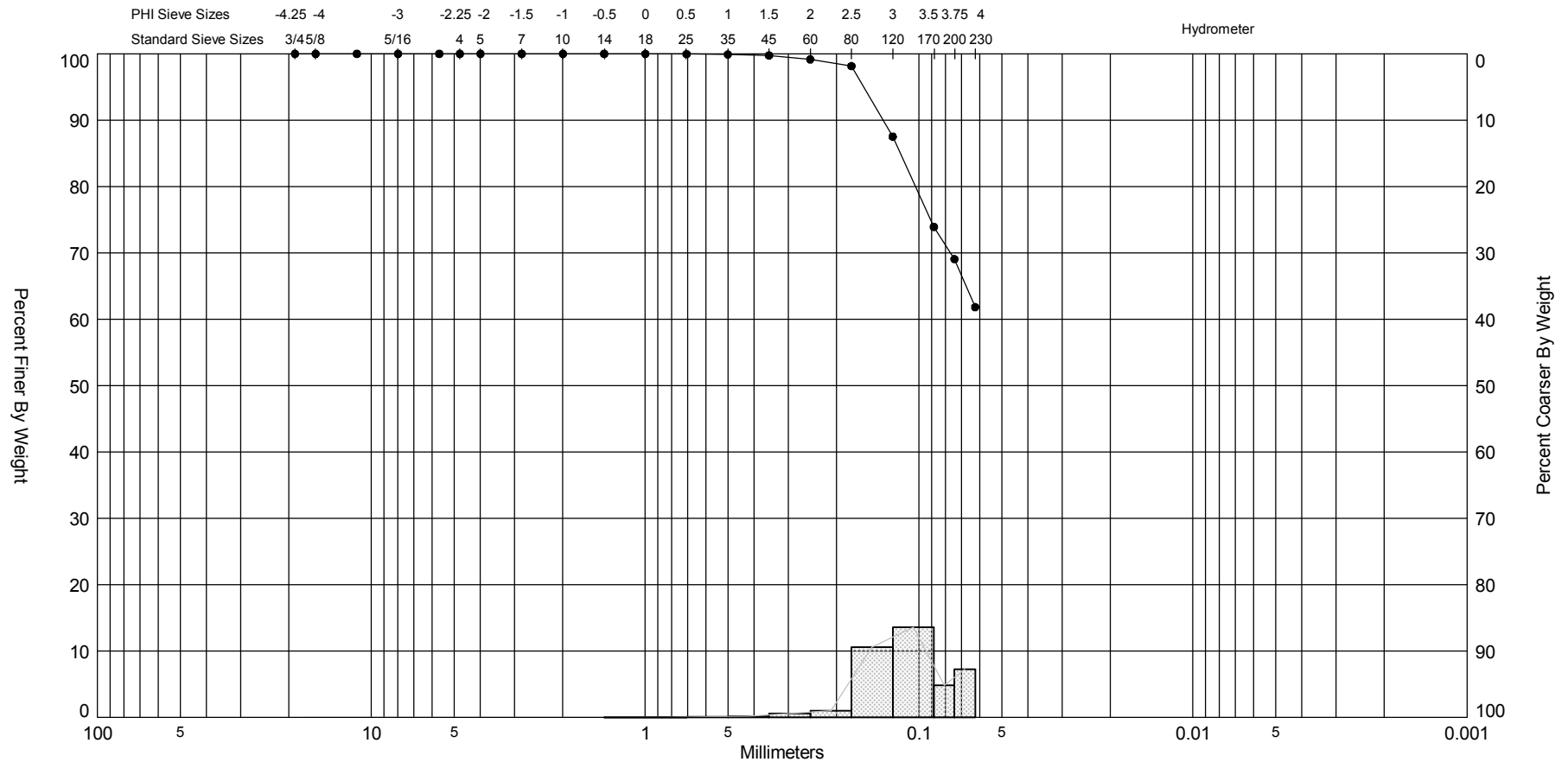
Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
JCVC-15-26 #3		-41.1	SP-SC	#200 - 10.37 #230 - 8.91			2.77	2.73	0.25	2.96	0.44	Project Name:	McFaddin Sand Search
Comments:												Analysis Date:	02-18-15
Depths and elevations based on measured values												Analyzed By:	GS
						CB&I Coastal Planning & Engineering, Inc. 2481 NW Boca Raton Blvd. Boca Raton, FL 33431 ph (561) 391 8102						Easting (X, ft):	3,478,827
												Northing (Y, ft):	13,789,710
												Horizontal System:	NAD 1983
												Vertical System:	NAVD 88



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
JCVC-15-26 #1	—●—	-29.8	CL	#200 - 93.68 #230 - 84.76				3.73	-5.14	57.01	0.24	Project Name:	McFaddin Sand Search
Comments:												Analysis Date:	02-18-15
Depths and elevations based on measured values												Analyzed By:	GS
							CB&I Coastal Planning & Engineering, Inc. 2481 NW Boca Raton Blvd. Boca Raton, FL 33431 ph (561) 391 8102					Easting (X, ft):	3,478,827
												Northing (Y, ft):	13,789,710
												Horizontal System:	NAD 1983
												Vertical System:	NAVD 88



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
JCVC-15-26 #2	—●—	-37.3	CL	#200 - 69.06 #230 - 61.82				3.21	-0.98	5.91	0.51	Project Name:	McFaddin Sand Search
Comments:												Analysis Date:	02-18-15
Depths and elevations based on measured values												Analyzed By:	GS
							CB&I Coastal Planning & Engineering, Inc. 2481 NW Boca Raton Blvd. Boca Raton, FL 33431 ph (561) 391 8102					Easting (X, ft):	3,478,827
												Northing (Y, ft):	13,789,710
												Horizontal System:	NAD 1983
												Vertical System:	NAVD 88

Granularmetric Report Depths and elevations based on measured values				 CB&I Coastal Planning & Engineering, Inc. 2481 NW Boca Raton Blvd. Boca Raton, FL 33431 ph (561) 391 8102											
Project Name: McFaddin Sand Search															
Sample Name: JCVC-15-26 #1															
Analysis Date: 02-18-15															
Analyzed By: GS				Easting (ft):		Northing (ft):		Coordinate System:		Elevation (ft):					
		3,478,827		13,789,710		Texas South Central		-29.8 NAVD 88							
USCS:		Munsell: Wet - 2.5Y-4/3 Dry - 2.5Y-6/2 Washed - 2.5Y-7/2		Comments:											
CL															
Dry Weight (g):		Wash Weight (g):		Pan Retained (g):		Sieve Loss (%):		Fines (%):		Organics (%):		Carbonates (%):		Shell Hash (%):	
87.43		17.53		4.15		0.06		#200 - 93.68 #230 - 84.76							
Sieve Number		Sieve Size (Phi)		Sieve Size (Millimeters)		Grams Retained		% Weight Retained		Cum. Grams Retained		C. % Weight Retained			
3/4"		-4.25		19.03		0.00		0.00		0.00		0.00			
5/8"		-4.00		16.00		0.00		0.00		0.00		0.00			
7/16"		-3.50		11.31		0.00		0.00		0.00		0.00			
5/16"		-3.00		8.00		0.00		0.00		0.00		0.00			
3.5		-2.50		5.66		0.00		0.00		0.00		0.00			
4		-2.25		4.76		0.00		0.00		0.00		0.00			
5		-2.00		4.00		0.00		0.00		0.00		0.00			
7		-1.50		2.83		0.00		0.00		0.00		0.00			
10		-1.00		2.00		0.00		0.00		0.00		0.00			
14		-0.50		1.41		0.00		0.00		0.00		0.00			
18		0.00		1.00		0.00		0.00		0.00		0.00			
25		0.50		0.71		0.01		0.01		0.01		0.01			
35		1.00		0.50		0.00		0.00		0.01		0.01			
45		1.50		0.35		0.02		0.02		0.03		0.03			
60		2.00		0.25		0.00		0.00		0.03		0.03			
80		2.50		0.18		0.01		0.01		0.04		0.04			
120		3.00		0.13		0.07		0.08		0.11		0.12			
170		3.50		0.09		0.88		1.01		0.99		1.13			
200		3.75		0.07		4.54		5.19		5.53		6.32			
230		4.00		0.06		7.80		8.92		13.33		15.24			
Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.															
Phi 5		Phi 16		Phi 25		Phi 50		Phi 75		Phi 84		Phi 95			
														3.69	
Moment		Mean Phi		Mean mm		Sorting		Skewness		Kurtosis					
Statistics		3.73		0.08		0.24		-5.14		57.01					

Granularmetric Report Depths and elevations based on measured values				 CB&I Coastal Planning & Engineering, Inc. 2481 NW Boca Raton Blvd. Boca Raton, FL 33431 ph (561) 391 8102			
Project Name: McFaddin Sand Search							
Sample Name: JCVC-15-26 #2							
Analysis Date: 02-18-15							
Analyzed By: GS				Coordinate System:		Elevation (ft):	
Easting (ft):		Northing (ft):					
3,478,827		13,789,710		Texas South Central		-37.3 NAVD 88	
USCS:		Munsell: Wet - 2.5Y-4/1 Dry - 2.5Y-6/1 Washed - 2.5Y-7/1		Comments:			
CL							
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
83.56	35.76	3.78	0.10	#200 - 69.06 #230 - 61.82			
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained	
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00	
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00	
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00	
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00	
3.5	-2.50	5.66	0.00	0.00	0.00	0.00	
4	-2.25	4.76	0.00	0.00	0.00	0.00	
5	-2.00	4.00	0.00	0.00	0.00	0.00	
7	-1.50	2.83	0.00	0.00	0.00	0.00	
10	-1.00	2.00	0.00	0.00	0.00	0.00	
14	-0.50	1.41	0.00	0.00	0.00	0.00	
18	0.00	1.00	0.02	0.02	0.02	0.02	
25	0.50	0.71	0.02	0.02	0.04	0.04	
35	1.00	0.50	0.05	0.06	0.09	0.10	
45	1.50	0.35	0.12	0.14	0.21	0.24	
60	2.00	0.25	0.50	0.60	0.71	0.84	
80	2.50	0.18	0.84	1.01	1.55	1.85	
120	3.00	0.13	8.87	10.62	10.42	12.47	
170	3.50	0.09	11.38	13.62	21.80	26.09	
200	3.75	0.07	4.05	4.85	25.85	30.94	
230	4.00	0.06	6.05	7.24	31.90	38.18	
Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.							
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
				3.46	3.13	2.65	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	3.21	0.11	0.51	-0.98	5.91		

Granularmetric Report Depths and elevations based on measured values				 CB&I Coastal Planning & Engineering, Inc. 2481 NW Boca Raton Blvd. Boca Raton, FL 33431 ph (561) 391 8102			
Project Name: McFaddin Sand Search							
Sample Name: JCVC-15-26 #3							
Analysis Date: 02-18-15							
Analyzed By: GS							
Easting (ft): 3,478,827		Northing (ft): 13,789,710		Coordinate System: Texas South Central		Elevation (ft): -41.1 NAVD 88	
USCS: SP-SC		Munsell: Wet - 2.5Y-4/1 Dry - 2.5Y-5/1 Washed - 2.5Y-6/1		Comments:			
Dry Weight (g): 100.33	Wash Weight (g): 91.64	Pan Retained (g): 0.17	Sieve Loss (%): 0.09	Fines (%): #200 - 10.37 #230 - 8.91	Organics (%):	Carbonates (%):	Shell Hash (%):
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained	
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00	
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00	
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00	
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00	
3.5	-2.50	5.66	0.00	0.00	0.00	0.00	
4	-2.25	4.76	0.00	0.00	0.00	0.00	
5	-2.00	4.00	0.00	0.00	0.00	0.00	
7	-1.50	2.83	0.00	0.00	0.00	0.00	
10	-1.00	2.00	0.00	0.00	0.00	0.00	
14	-0.50	1.41	0.00	0.00	0.00	0.00	
18	0.00	1.00	0.00	0.00	0.00	0.00	
25	0.50	0.71	0.00	0.00	0.00	0.00	
35	1.00	0.50	0.01	0.01	0.01	0.01	
45	1.50	0.35	0.05	0.05	0.06	0.06	
60	2.00	0.25	2.58	2.57	2.64	2.63	
80	2.50	0.18	25.19	25.11	27.83	27.74	
120	3.00	0.13	42.05	41.91	69.88	69.65	
170	3.50	0.09	16.08	16.03	85.96	85.68	
200	3.75	0.07	3.96	3.95	89.92	89.63	
230	4.00	0.06	1.46	1.46	91.38	91.09	
Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.							
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
	3.45	3.17	2.77	2.45	2.27	2.05	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	2.73	0.15	0.44	0.25	2.96		





